

FORM PTO-4390 (Modified)
(REV 11-98)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER

TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A FILING UNDER 35 U.S.C. 371

112740-328

U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR

09/937539 ✓

INTERNATIONAL APPLICATION NO.
PCT/DE00/00877 ✓INTERNATIONAL FILING DATE
21 March 2000 ✓

PRIORITY DATE CLAIMED

26 March 1999 ✓

TITLE OF INVENTION

MOBILE TELECOMMUNICATIONS TERMINAL ✓

APPLICANT(S) FOR DO/EO/US

Rolf Biedermann ✓

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S.C. 371 (c) (2))
 - a. ☒ is transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ has been transmitted by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ☒ A copy of the International Search Report (PCT/ISA/210).
8. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))
 - a. ☒ are transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ have been transmitted by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☐ have not been made and will not be made.
9. ☒ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
10. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).
11. ☒ A copy of the International Preliminary Examination Report (PCT/IPEA/409).
12. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).

Items 13 to 20 below concern document(s) or information included:

13. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
14. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
15. ☒ A **FIRST** preliminary amendment.
16. ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
17. ☒ A substitute specification.
18. ☐ A change of power of attorney and/or address letter.
19. ☒ Certificate of Mailing by Express Mail
20. ☒ Other items or information:

Submission of Drawings Figures 1-3 on two sheets

U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR) 09/937539		INTERNATIONAL APPLICATION NO. PCT/DE00/00877		ATTORNEY'S DOCKET NUMBER 112740-328	
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21. The following fees are submitted:				CALCULATIONS PTO USE ONLY	
BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)) : <input type="checkbox"/> Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO \$1,000.00 <input checked="" type="checkbox"/> International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO \$860.00 <input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$710.00 <input type="checkbox"/> International preliminary examination fee paid to USPTO (37 CFR 1.482) but all claims did not satisfy provisions of PCT Article 33(1)-(4) \$690.00 <input type="checkbox"/> International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(1)-(4) \$100.00 <div style="text-align: right;">ENTER APPROPRIATE BASIC FEE AMOUNT =</div>				\$860.00	
Surcharge of \$130.00 for furnishing the oath or declaration later than _____ months from the earliest claimed priority date (37 CFR 1.492 (e)). <input type="checkbox"/> 20 <input type="checkbox"/> 30 <div style="text-align: right;">\$0.00</div>					
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total claims	9 - 20 =	0	x \$18.00	\$0.00	
Independent claims	1 - 3 =	0	x \$80.00	\$0.00	
Multiple Dependent Claims (check if applicable). <input type="checkbox"/>				\$0.00	
TOTAL OF ABOVE CALCULATIONS =				\$860.00	
Reduction of 1/2 for filing by small entity, if applicable. Verified Small Entity Statement must also be filed (Note 37 CFR 1.9, 1.27, 1.28) (check if applicable). <input type="checkbox"/>				\$0.00	
SUBTOTAL =				\$860.00	
Processing fee of \$130.00 for furnishing the English translation later than _____ months from the earliest claimed priority date (37 CFR 1.492 (f)). <input type="checkbox"/> 20 <input type="checkbox"/> 30 +				\$0.00	
TOTAL NATIONAL FEE =				\$860.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31) (check if applicable). <input type="checkbox"/>				\$0.00	
TOTAL FEES ENCLOSED =				\$860.00	
				Amount to be: refunded	\$
				charged	\$

☒ A check in the amount of **\$860.00** to cover the above fees is enclosed.

☐ Please charge my Deposit Account No. _____ in the amount of _____ to cover the above fees.
 A duplicate copy of this sheet is enclosed.

☒ The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. **02-1818** A duplicate copy of this sheet is enclosed.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

William E. Vaughan (Reg. No. 39,056)
Bell, Boyd & Lloyd LLC
P.O. Box 1135
Chicago, Illinois 60690

SIGNATURE

William E. Vaughan
 NAME

39,056
 REGISTRATION NUMBER

September 26, 2001
 DATE

09/937539

JC09 Rec'd PCT/PTO 26 SEP 2001

BOX PCT

IN THE UNITED STATES ELECTED/DESIGNATED OFFICE
OF THE UNITED STATES PATENT AND TRADEMARK OFFICE
UNDER THE PATENT COOPERATION TREATY-CHAPTER II

5

PRELIMINARY AMENDMENT

APPLICANT: Rolf Biedermann DOCKET NO: 112740-328
SERIAL NO: GROUP ART UNIT:
EXAMINER:
INTERNATIONAL APPLICATION NO: PCT/DE00/00877
INTERNATIONAL FILING DATE: 21 March 2000
INVENTION: MOBILE TELECOMMUNICATIONS TERMINAL

15 Assistant Commissioner for Patents,
Washington, D.C. 20231

Sir:

Please amend the above-identified International Application before entry
into the National stage before the U.S. Patent and Trademark Office under 35
U.S.C. §371 as follows:

In the Specification:

Please replace the Specification of the present application, including the
Abstract, with the following Substitute Specification:

SPECIFICATION

TITLE OF THE INVENTION

MOBILE TELECOMMUNICATIONS TERMINAL

BACKGROUND OF THE INVENTION

25 The present invention relates to a mobile telecommunications terminal
which can be activated at one of a number of different base stations in order to set
up and conduct communication connections with a telecommunications network via
this base station. Terminals of this type, in particular cordless telephones, can be
used by a user indiscriminately in connection with base stations installed at

different locations for telephoning; for example, at one or more locations of a company where the user is employed or at his home. Cordless telephones of this type usually have a numbers memory in which the user can store frequently used call numbers, if appropriate in conjunction with the name of a person to be called and with respect to which he/she can set up a connection by simply selecting the number or the name in a displayed list.

If such a mobile terminal is used in connection with different base stations, there may arise the problem that the numbering plans of these different base stations vary. If, for example, the base stations belong to different local networks, call numbers stored without a local area code can, in each case, only be dialed via the base station located in the relevant local network. Further problems may arise if an exchange identification code has to be preselected for one of the base stations but not for another, if abbreviated dialing numbers are used but only defined locally for one base station, or if extension numbers which are likewise only meaningful for one base station are stored.

This obligates the users of such terminals to store in the numbers directory different numbers for the same persons to be called, whether they can be dialed depending on at which of the different mobile base stations the terminal is activated at a given point in time and, whenever they dial a number from the numbers directory, they are obligated them to remember at which base station the terminal is activated at the time concerned. This makes use of the numbers directory difficult and prone to errors.

EP 0 874 529 A2 discloses a mobile communications terminal which, on entering a radio service area and registration in this radio service area receives the area and local codes and address information identifying the position of the radio service area from the device providing the radio service, whereupon the mobile terminal determines on the basis of this information from its own address book the telephone numbers, names and addresses which are assigned to this radio service area, the addresses determined in this way being offered to the user on a display of the mobile terminal.

SUMMARY OF THE INVENTION

In light of the above, the present invention provides a telecommunications terminal which makes the numbers memory more convenient and reliable to use. For this purpose, it is provided in the case of a mobile telecommunications terminal which can be activated at one of a number of different base stations in order to set up and conduct communication connections with a telecommunications network via this base station, and which has a numbers memory, a display for displaying names assigned to call numbers stored in the numbers memory and the ability to transfer a call number to a base station in response to the selection by a user of the displayed name assigned to the call number . It is possible to store, with respect to a call number stored in the numbers memory, information which indicates in connection with which of the base stations the call number can be dialed. To be certain of ruling out operating errors by the user, the display is preferably set up to display only those names among the ones assigned to the stored call numbers which can be dialed in connection with a designated base station.

This ensures that, when using the call numbers memory for dialing a subscriber, a user is only offered for selection those names of subscribers for which a call number valid for the designated base station is stored.

This information may be displayed in various ways. For example, in a numbers memory organized on the basis of columns there may be provided a numbers column for the stored call numbers and a stations column specifying for each call number the base station(s) in connection with which this call number can be dialed. The information also may, however, be represented by the distribution of the stored call numbers in the numbers memory, to be specific if, in the case of a numbers memory organized on the basis of columns, each of the different base stations to which the terminal can be connected is assigned a column and in each column the call numbers which can be dialed in connection with the assigned base station are stored.

During normal use of the terminal, the designated base station should be the one at which the terminal is activated. This may be achieved in various ways.

One way is to equip such a terminal with an operator control element for the user to designate the base station. This allows the latter, for example, to make the base station of his/her workplace the designated base station when he/she arrives at work in the morning, and when he/she gets home on the other hand to make it the
5 base station of his/her home. This rules out the possibility of inadvertently dialing at the workplace call numbers from the numbers directory which are only valid at home, and vice versa.

If a mobile terminal is activated at a base station, that is to say enters a state of readiness in which it is capable of receiving it for certain calls from the base
10 station or of sending requests for establishing a call connection to the station, there must necessarily first take place a data exchange between the base station and the terminal in which both reveal their identity to the other, in order to check the authorization to communicate with each other. If the terminal in this way establishes the identity of the base station at which it is activated, it is advantageous
15 if it makes this base station the designated base station. In this case, it is not necessary for the user to designate the base station because this is automatically performed by the terminal when it enters the transmitting/receiving range of a base station or is switched on within this range.

The terminal is, furthermore, advantageously able to be switched over
20 between a dialing operating state, in which only the names which can be dialed in connection with the designated base station are displayed and offered to a user for selection, and an editing operating state, in which all the data, names, call numbers and information on the assignment of a call number to a station stored in the numbers memory are displayed and can be changed by a user.

When a user enters a call number into the numbers memory of the terminal,
25 he/she has the possibility of specifying in connection with which of the different base stations the call number is to be able to be dialed. If he/she does not specify anything in this respect, the information that the number can be dialed in connection with all the base stations is stored with respect to the call number
30 concerned. A user who uses the terminal only in connection with a single base

station or in connection with a number of base stations which use the same numbering plans, therefore, does not have to do anything more than in the case of conventional terminals when entering call numbers into the numbers memory.

Additional features and advantages of the present invention are described in,
5 and will be apparent from, the following Detailed Description of the Invention and the Figures.

BRIEF DESCRIPTION OF THE FIGURES

Figure 1 shows the individual functional groups of a terminal according to the present invention.

10 Figures 2A and 2B show two alternatives of the internal organization of a numbers memory.

Figures 3A and 3B show possible forms of a display element of the terminal in the dialing operating state.

BRIEF DESCRIPTION OF THE INVENTION

15 Figure 1 schematically shows the functional groups of a mobile telecommunications terminal which are important for understanding the present invention. These are a processor 1, which receives inputs of a user via an operator control element in the form of a keypad 2, a numbers memory 3, to which the processor 1 has reading and writing access, a display element, for example in the form of an LCD display 4, and a transmitter/ receiver functional group 5 for the
20 exchange of signaling data between the processor 1 and a base station (not represented); for example, for transmitting a call number selected by the user from the processor to the base station, and for transferring user information during the existence of a call connection.

25 Figure 2A shows a first example of the internal organization of the numbers memory 3. In the case considered here, the terminal can be connected to up to four different base stations, and the numbers memory 3 accordingly includes four numbers columns 8, each of which is respectively assigned to one of the base stations (a, b, c or d). A names column 9 is shared by all the numbers columns 8.
30 One row of the numbers memory 3 contains in the names column 9 a name of a

subscriber. The numbers columns 8 respectively contain in the same row call numbers of the subscriber concerned which are valid for the base station assigned to the numbers column. For the further description it is to be assumed as an example that the base station "a" corresponding to the first numbers column 8 is a base station at the workplace of the user, and the station "b" corresponding to the second numbers column is a base station at the user's home.

Each stored subscriber respectively has a corresponding row of the numbers memory 3. Stored in the first row are the name "ABC" of a first subscriber and, in the numbers columns 8 corresponding to the base stations a and b, the call numbers valid for the corresponding base stations. "ABC" could be, for example, a superior of the user who can be reached via the company's base station by an abbreviated dialing number "73" and an extension number "2318" and via the private base station b by using a local network code. The subscriber "DEF" stored in the second row may be, for example, a personal friend of the user and only can be reached via a stored call number from the private base station b. A third subscriber "GHI", for example a colleague of the user, is assigned only a call number valid at the company base station a, which is, for example, an extension number of an in-house telecommunications system. Since, in the example considered here, the terminal is used only in connection with the two base stations a and b, the third and fourth numbers columns 8 remain unoccupied. Similarly, memory locations in the numbers columns 8 corresponding to the base stations a and b remain unoccupied if no call number is stored for a subscriber in connection with the corresponding base station.

An organization of the numbers memory 3, which avoids leaving empty the individual memory locations, is shown in Figure 2B. Here, the numbers memory 3 is divided into a names column 9, a single numbers column 8 and a stations column 10. Thus, for example, the first row of the numbers memory 3 contains in the names column the name "ABC", in the numbers column 8 the company call number of "ABC" and in the stations column a set bit with respect to each base station for which the number is valid and a reset bit for all the other base stations. In the

present case, only the bit corresponding to the company base station a is set; if the call number were valid for a number of base stations, all the bits corresponding to the stations would be set. The second row, in turn, contains the name "ABC", the call number valid for the private base station b and, in the stations column 10, a set
5 bit corresponding to the station b.

If the terminal enters the transmitting/receiving range of a base station or is put into operation in this range, it is first necessary to designate this base station. In a simple configuration of the terminal, the user can do this manually; for example, by pressing on the keypad 2 a key assigned to the base station to be designated. If
10 the user later activates a dialing operating state of the terminal, the processor 1 reads the content of the call number memory 3 and displays on the display 4 only those names to which a call number valid for the designated base station is assigned in the numbers memory 3 so that the user also can only dial these numbers.

Figure 3A shows the form of the display 4 when the terminal a is
15 designated. A first display zone 14 of the display 4 indicates which is the currently designated station; in a second display zone 15, the names of the persons to be called who can be dialed are shown. In this case, the name of one of the persons to be called which can be chosen by pressing a selection key of the operator control panel 2 is identified in a known way by a dark background 16, inverted script or
20 bold representation of the letters. In the case of Figure 3A, in which the base station a is designated and displayed in the display zone 14, the processor 1 selects the names "ABC" and "GHI" for display; the subscriber "DEF", likewise stored in the numbers memory 3, is not displayed since his/her call number is not valid for the station a. By analogy, in the case shown in Figure 3B where the base
25 station b is designated, only the names "ABC" and "DEF" are displayed; the subscriber "GHI" cannot be selected.

In a more advanced configuration of the terminal, the processor 1 automatically performs the designation of the base station. For this purpose, it is sufficient to evaluate the legitimization record usually made when a terminal is
30 activated at a base station and in which the base station reveals its identity to the

terminal. In this way, a fully automatic change between different base stations is possible, and the use of the correct call numbers is ensured at each base station, even without the user having to know in the transmitting/receiving range of which base station the terminal is located.

5 The input of call numbers and names into the numbers memory 3 takes place in a known way. Following the input, the processor 1 provides the user with the choice via the display 4 of whether he/she would like to specify base stations for which the call number entered is valid. If the user answers no by pressing a corresponding key of the keypad 2, the entered call number is regarded as valid for
10 all the base stations, that is to say in the case of an organization of the numbers memory such as that shown in Figure 2A, the number is entered identically into all the numbers columns 8. In the case of the organization represented in Figure 2B, all the bits of the stations column 10 for the number concerned are set. For a user
15 who does not require the capability of the terminal to activate itself for different base stations, the input of data into the numbers memory therefore does not involve any more effort than in the case of a terminal which does not have this capability.

 If the user answers yes, he/she is subsequently requested by the processor 1 to press one or more keys of the keypad 2 which are respectively assigned to a base station, and thereafter to press a confirmation key, to specify in this way one or
20 more base stations for which the number is valid.

 Clearly, the present invention can be used irrespective of the type of base station at which the terminal can be activated. For example, one or more of these base stations may be ones which have been set up by a private operator for his/her own use, for example within a home or company, whereas other base stations at
25 which the terminal likewise can be activated may belong, for example, to one or even various different public mobile telephone networks.

 Indeed, although the present invention has been described with reference to specific embodiments, those of skill in the art will recognize that changes may be made thereto without departing from the spirit and scope of the invention as set
30 forth in the hereafter appended claims.

ABSTRACT OF THE DISCLOSURE

A mobile telecommunications terminal which can be activated at different base stations, wherein it is possible to store in a numbers memory, (3) with respect to a call number, information which indicates which of the base stations the call number can be dialed, and to display on a display only those names among the ones assigned to the call numbers which can be dialed in connection with a designated base station, which can be designated manually or automatically by a data exchange with the base station concerned.

In the Claims:

- 10 On page 10, cancel line 1, and substitute the following left-hand justified heading therefor:

CLAIMS

On page 10, cancel claims 1-9, and substitute the following new claims therefor:

- 15 10. A mobile telecommunications terminal which can be activated at one of a plurality of different base stations to set up and conduct communication connections with a telecommunications network via a respective base station, the terminal comprising:
- a numbers memory;
 - 20 a display for displaying names assigned to call numbers stored in the numbers memory; and
 - a part for transferring a call number to a base station in response to a selection by a user of a displayed name assigned to the call number;
 - wherein it is possible to store in the numbers memory, in addition to a
 - 25 stored call number, information which indicates with which of the plurality of base stations the call number can be dialed.
11. A mobile telecommunications terminal as claimed in claim 10, wherein the display only displays the names among the names assigned to the
- 30 stored call numbers which can be dialed with a designated base station.

12. A mobile telecommunications terminal as claimed in claim 10,
wherein the numbers memory includes a plurality of columns, a numbers column
containing the stored call numbers and a stations column specifying for each call
5 number the base stations with which the call number can be dialed.

13. A mobile telecommunications terminal as claimed in claim 10,
wherein the numbers memory includes a plurality of columns which are
respectively assigned to a base station, such that the call numbers which can be
10 dialed with the respective base station are respectively stored in each column.

14. A mobile telecommunications terminal as claimed in claim 10,
further comprising:
an operator control element for the user to designate a base station.
15

15. A mobile telecommunications terminal as claimed in claim 10,
wherein the terminal is set up to establish an identity of the base station at which
the terminal is activated and to make the base station a designated base station.

16. A mobile telecommunications terminal as claimed in claim 10,
further comprising:
an operator control element for switching the display between a dialing
operating state, in which only the names which can be dialed with the designated
base station are displayed, and an editing operating state, in which all data stored in
20 the numbers memory are displayed.

17. A mobile telecommunications terminal as claimed in claim 10,
wherein, unless otherwise specified by the user, the terminal stores with respect to a
call number entered by the user into the numbers memory information that the
30 number can be dialed with all of the base stations.

18. A mobile telecommunications terminal as claimed in claim 10,
wherein the temrinal is a cordless telephone.

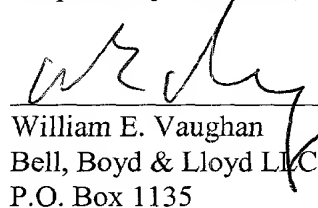
REMARKS

5 The amendment makes editorial changes and corrects typographical errors
in the specification, which includes the Abstract, in order to conform the
specification to the requirements of United States Patent Practice. No new matter is
added thereby. Attached hereto is a marked-up version of the changes made to the
specification by the present amendment. The attached page is captioned "**Version**
10 **With Markings To Show Changes Made**".

In addition, the present amendment cancels original claims 1-9 in favor of
new claims 10-18. Claims 10-18 have been presented solely because the revisions
by red-lining and underlining which would have been necessary in claims 1-9 in
order to present those claims in accordance with preferred United States Patent
15 Practice would have been too extensive, and thus would have been too burdensome.
The present amendment is intended for clarification purposes only and not for
substantial reasons related to patentability pursuant to 35 U.S.C. §§103, 102, 103 or
112. Indeed, the cancellation of claims 1-9 does not constitute an intent on the part
of the Applicant to surrender any of the subject matter of claims 1-9.

20 Early consideration on the merits is respectfully requested.

Respectfully submitted,


William E. Vaughan
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Attorneys for Applicant

VERSIONS WITH MARKINGS TO SHOW CHANGES MADEIn The Specification:

The Specification of the present application, including the Abstract, has been amended as follows:

SPECIFICATIONTITLE OF THE INVENTIONMOBILE TELECOMMUNICATIONS TERMINALBACKGROUND OF THE INVENTION5 DescriptionMobile telecommunications terminal

10 The present invention relates to a mobile telecommunications terminal which can be activated at ~~in each case~~ one of a number of different base stations in order to set up and conduct communication connections with a telecommunications network via this base station. Terminals of this type, in particular cordless telephones, can be used by a user indiscriminately in connection with base stations installed at different locations for telephoning; for example at one or more locations of a company where the user is employed or at his home. Cordless telephones of this type usually have a numbers memory, in which the user can store frequently used call numbers, if appropriate in conjunction with the name of a person to be called and with respect to which he/she can set up a connection by simply selecting the number or the name in a displayed list.

15 If such a mobile terminal is used in connection with different base stations, there may arise the problem that the numbering plans of these different base stations vary. If, for example, the base stations belong to different local networks, call numbers stored without a local area code can, in each case, only be dialed via the base station located in the relevant local network. Further problems may arise if an exchange identification code has to be preselected for one of the base stations but not for another, if abbreviated dialing numbers are used but ~~are in each case~~ only defined locally for one base station, or if extension numbers which are likewise ~~in each case~~ only meaningful for one base station are stored.

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This ~~obliges~~ obligates the users of such terminals to store in the numbers directory different numbers for the same persons to be called, whether they can be dialed depending on at which of the different mobile base stations the terminal is activated at a given point in time; and, whenever they dial a number from the numbers directory, ~~always obliges~~ they are obligated them to remember at which base station the terminal is activated at the time concerned. This makes use of the numbers directory difficult and prone to errors.

EP 0 874 529 A2 discloses a mobile communications terminal which, on entering a radio service area and registration in this radio service area receives the area and local codes and address information identifying the position of the radio service area from the device providing the radio service, whereupon the mobile terminal determines on the basis of this information from its own address book the telephone numbers, names and addresses which are assigned to this radio service area, the addresses determined in this way being offered to the user on a display of the mobile terminal.

SUMMARY OF THE INVENTION

The In light of the above, the present invention provides a telecommunications terminal which makes the numbers memory more convenient and reliable to use. For this purpose, it is provided in the case of a mobile telecommunications terminal which can be activated at ~~in each case~~ one of a number of different base stations in order to set up and conduct communication connections with a telecommunications network via this base station, and which has a numbers memory, means a display for displaying names assigned to call numbers stored in the numbers memory and ~~means for transferring~~ the ability to transfer a call number to a base station in response to the selection by a user of the displayed name assigned to the call number, ~~that it~~ . It is possible to store, with respect to a call number stored in the numbers memory, information which indicates in connection with which of the base stations the call number can be dialed. To be certain of ruling out operating errors by the user, the ~~means for~~ display are is preferably set up to display only those names among the ones

assigned to the stored call numbers which can be dialed in connection with a designated base station.

This ensures that, when using the call numbers memory for dialing a subscriber, a user is only offered for selection those names of subscribers for which a call number valid for the designated base station is stored.

This information may be displayed in various ways; ~~for~~ . For example, in a numbers memory organized on the basis of columns there may be provided a numbers column for the stored call numbers and a stations column specifying for each call number the base station(s) in connection with which this call number can be dialed. The information also may, however, ~~also~~ be represented by the distribution of the stored call numbers in the numbers memory, to be specific if, in the case of a numbers memory organized on the basis of columns, each of the different base stations to which the terminal can be connected is assigned a column and in each column the call numbers which can be dialed in connection with the assigned base station are stored.

During normal use of the terminal, the designated base station should be the one at which the terminal is activated. This may be achieved in various ways.

One way is to equip such a terminal with an operator control element for the user to designate the base station. This allows the latter, for example, to make the base station of his/her workplace the designated base station when he/she arrives at work in the morning, and when he/she gets home on the other hand to make it the base station of his/her home. This rules out the possibility of ~~him~~ inadvertently dialing at ~~his~~ the workplace call numbers from the numbers directory which are only valid at home, and vice versa.

If a mobile terminal is activated at a base station, that is to say enters a state of readiness in which it is capable of receiving it for certain calls from the base station or of sending requests for establishing a call connection to ~~said~~ the station, there must necessarily first take place a data exchange between the base station and the terminal in which both reveal their identity to the other, in order ~~in this way~~ to check the authorization to communicate with each other. If the terminal in this way

establishes the identity of the base station at which it is activated, it is advantageous if it makes this base station the designated base station. In this case, it is not necessary for the user to designate the base station because this is automatically performed by the terminal when it enters the transmitting/receiving range of a base station or is switched on within this range.

The terminal is, furthermore, advantageously able to be switched over between a dialing operating state, in which only the names which can be dialed in connection with the designated base station are displayed and offered to a user for selection, and an editing operating state, in which all the data, names, call numbers and information on the assignment of a call number to a station stored in the numbers memory are displayed and can be changed by a user.

When a user enters a call number into the numbers memory of the terminal, he/she has the possibility of specifying in connection with which of the different base stations the call number is to be able to be dialed. If he/she does not specify anything in this respect, the information that the number can be dialed in connection with all the base stations is stored with respect to the call number concerned. A user who uses the terminal only in connection with a single base station or in connection with a number of base stations which use the same numbering plans, therefore, does not have to do anything more than in the case of conventional terminals when entering call numbers into the numbers memory.

~~Further features and advantages of the invention emerge from the following description of exemplary embodiments with reference to the figures, in which:~~

Additional features and advantages of the present invention are described in, and will be apparent from, the following Detailed Description of the Invention and the Figures.

BRIEF DESCRIPTION OF THE FIGURES

Figure 1 shows the individual functional groups of a terminal according to the present invention,

Figures 2A and 2B show two alternatives of the internal organization of a numbers memory, and,

Figures 3A and 3B show possible forms of a display element of the terminal in the dialing operating state.

BRIEF DESCRIPTION OF THE INVENTION

Figure 1 schematically shows the functional groups of a mobile telecommunications terminal which are important for understanding the present invention. These are a processor 1, which receives inputs of a user via an operator control element in the form of a keypad 2, a numbers memory 3, to which the processor 1 has reading and writing access, a display element, for example in the form of an LCD display 4, and a transmitter/ receiver functional group 5 for the exchange of signaling data between the processor 1 and a base station (not represented); for example, for transmitting a call number selected by the user from the processor to the base station, and for transferring user information during the existence of a call connection.

Figure 2A shows a first example of the internal organization of the numbers memory 3. In the case considered here, the terminal can be connected to up to four different base stations, and the numbers memory 3 accordingly ~~comprises~~ includes four numbers columns 8, each of which is respectively assigned to one of the base stations (a, b, c or d). A names column 9 is shared by all the numbers columns 8. One row of the numbers memory 3 contains in the names column 9 a name of a subscriber. The numbers columns 8 respectively contain in the same row call numbers of the subscriber concerned which are valid for the base station assigned to the numbers column. For the further description it is to be assumed as an example that the base station a "a" corresponding to the first numbers column 8 is a base station at the workplace of the user, and the station b "b" corresponding to the second numbers column is a base station at the user's home.

Each stored subscriber respectively has a corresponding row of the numbers memory 3. Stored in the first row are the name "ABC" of a first subscriber and, in the numbers columns 8 corresponding to the base stations a and b, the call numbers valid for the corresponding base stations. "ABC" could be, for example, a superior of the user who can be reached via the company's base station by an abbreviated

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dialing number "73" and an extension number "2318" and via the private base station b by using a local network code. The subscriber "DEF" stored in the second row may be, for example, a personal friend of the user and ~~can~~ only can be reached via a stored call number from the private base station b. A third subscriber "GHI",
5 for example a colleague of the user, is assigned only a call number valid at the company base station a, which is, for example, an extension number of an in-house telecommunications system. Since, in the example considered here, the terminal is used only in connection with the two base stations a and b, the third and fourth numbers columns 8 remain unoccupied. Similarly, memory locations in the
10 numbers columns 8 corresponding to the base stations a and b remain unoccupied if no call number is stored for a subscriber in connection with the corresponding base station.

An organization of the numbers memory 3 ~~avoiding the~~ , which avoids leaving empty of the individual memory locations, is shown in figure Figure 2B.

15 Here, the numbers memory 3 is divided into a names column 9, a single numbers column 8 and a stations column 10. Thus, for example, the first row of the numbers memory 3 contains in the names column the name "ABC", in the numbers column 8 the company call number of "ABC" and in the stations column a set bit with respect to each base station for which the number is valid and a reset bit for all
20 the other base stations. In the present case, only the bit corresponding to the company base station a is set; if the call number were valid for a number of base stations, all the bits corresponding to the stations would be set. The second row, in turn, contains the name "ABC", the call number valid for the private base station b and, in the stations column 10, a set bit corresponding to the station b.

25 If the terminal enters the transmitting/receiving range of a base station or is put into operation in this range, it is first necessary to designate this base station. In a simple configuration of the terminal, the user can do this manually; for example, by pressing on the keypad 2 a key assigned to the base station to be designated. If the user later activates a dialing operating state of the terminal, the processor 1
30 reads the content of the call number memory 3 and displays on the display 4 only

those names to which a call number valid for the designated base station is assigned in the numbers memory 3; so that the user also can ~~also~~ only dial these numbers.

Figure 3A shows the form of the display 4 when the terminal a is designated. A first display zone 14 of the display 4 indicates which is the currently designated station; in a second display zone 15, the names of the persons to be called who can be dialed are shown. In this case, the name of one of the persons to be called which can be chosen by pressing a selection key of the operator control panel 2 is identified in a known way by a dark background 16, inverted script or bold representation of the letters. In the case of ~~figure~~ Figure 3A, in which the base station a is designated and displayed in the display zone 14, the processor 1 selects the names "ABC" and "GHI" for display; the subscriber "DEF", likewise stored in the numbers memory 3, is not displayed since his/her call number is not valid for the station a. By analogy, in the case shown in ~~figure~~ Figure 3B where the base station b is designated, only the names "ABC" and "DEF" are displayed; the subscriber "GHI" cannot be selected.

In a more advanced configuration of the terminal, the processor 1 automatically performs the designation of the base station. For this purpose, it is sufficient to evaluate the legitimization record usually made when a terminal is activated at a base station and in which the base station reveals its identity to the terminal. In this way, a fully automatic change between different base stations is possible, and the use of the correct call numbers is ensured at each base station, even without the user having to know in the transmitting/receiving range of which base station the terminal is located.

The input of call numbers and names into the numbers memory 3 takes place in a known way. Following the input, the processor 1 provides the user with the choice via the display 4 of whether he/she would like to specify base stations for which the call number entered is valid. If the user answers no by pressing a corresponding key of the keypad 2, the entered call number is regarded as valid for all the base stations, that is to say in the case of an organization of the numbers memory such as that shown in ~~figure~~ Figure 2A, the number is entered identically

into all the numbers columns 8; ~~in~~. In the case of the organization represented in ~~figure~~ Figure 2B, all the bits of the stations column 10 for the number concerned are set. For a user who does not require the capability of the terminal to activate itself for different base stations, the input of data into the numbers memory

5 therefore does not involve any more effort than in the case of a terminal which does not have this capability.

If the user answers yes, he/she is subsequently requested by the processor 1 to press one or more keys of the keypad 2 which are respectively assigned to a base station, and ~~subsequently~~ thereafter to press a confirmation key, to specify in this
10 way one or more base stations for which the number is valid.

~~It goes without saying that~~ Clearly, the present invention can be used irrespective of the type of base station at which the terminal can be activated. For example, one or more of these base stations may be ones which have been set up by a private operator for his/her own use, for example within a home or company,
15 whereas other base stations at which the terminal ~~can~~ likewise can be activated may belong, for example, to one or even various different public mobile telephone networks.

Indeed, although the present invention has been described with reference to specific embodiments, those of skill in the art will recognize that changes may be
20 made thereto without departing from the spirit and scope of the invention as set forth in the hereafter appended claims.

Abstract

ABSTRACT OF THE DISCLOSURE

Mobile telecommunications terminal

In the case a A mobile telecommunications terminal which can be activated
5 at different base stations, wherein (a, b, c, d) it is possible to store in a numbers
memory, (3) with respect to a call number, (column 8) information (column 10)
which indicates ~~in connection with~~ which of the base stations the call number can
be dialed, and ~~display means to display on a display~~ only those names among the
ones assigned to the call numbers which can be dialed in connection with a
10 designated base station, ~~This base station~~ which can be designated manually or
automatically by a data exchange with the base station concerned.

Figure 2

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Description

Mobile telecommunications terminal

5 The present invention relates to a mobile telecommunications terminal which can be activated at in each case one of a number of different base stations in order to set up and conduct communication connections with a telecommunications network via this
10 base station. Terminals of this type, in particular cordless telephones, can be used by a user indiscriminately in connection with base stations installed at different locations for telephoning, for example at one or more locations of a company where the
15 user is employed or at his home. Cordless telephones of this type usually have a numbers memory, in which the user can store frequently used call numbers, if appropriate in conjunction with the name of a person to be called and with respect to which he can set up a
20 connection by simply selecting the number or the name in a displayed list.

If such a mobile terminal is used in connection with different base stations, there may arise the problem
25 that the numbering plans of these different base stations vary. If, for example, the base stations belong to different local networks, call numbers stored without a local area code can in each case only be dialed via the base station located in the relevant
30 local network. Further problems may arise if an exchange identification code has to be preselected for one of the base stations but not for another, if abbreviated dialing numbers are used but are in each case only defined locally for one base station, or if
35 extension numbers which are likewise in each case only meaningful for one base station are stored.

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5 This obliges the users of such terminals to store in
the numbers directory different numbers for the same
persons to be called, whether they can be dialed
depending on at which of the different mobile base
stations the terminal is activated at a given point in
time, and, whenever they dial a number from the numbers
directory, always obliges them to remember at which
base station the terminal is activated at the time
concerned. This makes use of the numbers directory
10 difficult and prone to errors.

15 EP 0 874 529 A2 discloses a mobile communications
terminal which, on entering a radio service area and
registration in this radio service area receives the
area and local codes and address information
identifying the position of the radio service area from
the device providing the radio service, whereupon the
mobile terminal determines on the basis of this
information from its own address book the telephone
20 numbers, names and addresses which are assigned to this
radio service area, the addresses determined in this
way being offered to the user on a display of the
mobile terminal.

25 The present invention provides a telecommunications
terminal which makes the numbers memory more convenient
and reliable to use. For this purpose, it is provided
in the case of a mobile telecommunications terminal
which can be activated at in each case one of a number
30 of different base stations in order to set up and
conduct communication connections with a
telecommunications network via this base station, and
which has a numbers memory, means for displaying names
assigned to call numbers stored in the numbers memory

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and means for transferring a call number to a base station in response to the selection by a user of the displayed name assigned to the call number, that it is possible to store with respect to a call number stored
5 in the numbers memory information which indicates inconnection with which of the base stations the call number can be dialed. To be certain of ruling out operating errors by the user, the means for display are preferably set up to display only those names among the
10 ones assigned to the stored call numbers which can be dialed in connection with a designated base station.

This ensures that, when using the call numbers memory for dialing a subscriber, a user is only offered for
15 selection those names of subscribers for which a call number valid for the designated base station is stored.

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This information may be displayed in various ways; for example, in a numbers memory organized on the basis of columns there may be provided a numbers column for the stored call numbers and a stations column specifying for each call number the base station(s) in connection with which this call number can be dialed. The information may, however, also be represented by the distribution of the stored call numbers in the numbers memory, to be specific if, in the case of a numbers memory organized on the basis of columns, each of the different base stations to which the terminal can be connected is assigned a column and in each column the call numbers which can be dialed in connection with the assigned base station are stored.

During normal use of the terminal, the designated base station should be the one at which the terminal is activated. This may be achieved in various ways.

One way is to equip such a terminal with an operator control element for the user to designate the base station. This allows the latter for example to make the base station of his workplace the designated base station when he arrives at work in the morning, when he gets home on the other hand the base station of his home. This rules out the possibility of him inadvertently dialing at his workplace call numbers from the numbers directory which are only valid at home, and vice versa.

If a mobile terminal is activated at a base station, that is to say enters a state of readiness in which it is capable of receiving it for certain calls from the base station or of sending requests for establishing a call connection to said station, there must necessarily first take place a data exchange between the base station and the terminal in which both

reveal their identity to the other, in order in this way to check the authorization to communicate with each other. If the terminal in this way establishes the identity of the base station at which it is activated, 5 it is advantageous if it makes this base station the designated base station. In this case, it is not necessary for the user to designate the base station because this is automatically performed by the terminal when it enters the transmitting/receiving range of a 10 base station or is switched on within this range.

The terminal is, furthermore, advantageously able to be switched over between a dialing operating state, in which only the names which can be dialed in connection 15 with the designated base station are displayed and offered to a user for selection, and an editing operating state, in which all the data, names, call numbers and information on the assignment of a call number to a station stored in the numbers memory are 20 displayed and can be changed by a user.

When a user enters a call number into the numbers memory of the terminal, he has the possibility of specifying in connection with which of the different 25 base stations the call number is to be able to be dialed. If he does not specify anything in this respect, the information that the number can be dialed in connection with all the base stations is stored with respect to the call number concerned. A user who uses 30 the terminal only in connection with a single base station or in connection with a number of base stations which use the same numbering plans therefore does not have to do anything more than in the case of conventional terminals when entering call numbers into 35 the numbers memory.

Further features and advantages of the invention emerge from the following description of exemplary embodiments with reference to the figures, in which:

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Figure 1 shows the individual functional groups of a terminal according to the invention,

Figures 2A and 2B show two alternatives of the internal organization of a numbers memory, and

Figures 3A and 3B show possible forms of a display element of the terminal in the dialing operating state.

Figure 1 schematically shows the functional groups of a mobile telecommunications terminal which are important for understanding the present invention. These are a processor 1, which receives inputs of a user via an operator control element in the form of a keypad 2, a numbers memory 3, to which the processor 1 has reading and writing access, a display element, for example in the form of an LCD display 4, and a transmitter/receiver functional group 5 for the exchange of signaling data between the processor 1 and a base station (not represented), for example for transmitting a call number selected by the user from the processor to the base station, and for transferring user information during the existence of a call connection.

Figure 2A shows a first example of the internal organization of the numbers memory 3. In the case considered here, the terminal can be connected to up to four different base stations, and the numbers memory 3 accordingly comprises four numbers columns 8, each of which is respectively assigned to one of the base stations (a, b, c or d). A names column 9 is shared by all the numbers columns 8. One row of the numbers memory 3 contains in the names column 9 a name of a subscriber. The numbers columns 8 respectively contain in the same row call numbers of the subscriber concerned which are valid for the base station assigned to the numbers column. For the further description it

Parameter	Value	Unit
Mean	1.00	
Standard deviation	0.10	
Minimum	0.80	
Maximum	1.20	
Range	0.40	
Skewness	0.00	
Kurtosis	0.00	
Alpha	0.95	
Alpha squared	0.90	
Alpha if item deleted	0.91	
Mean square	1.00	
Sum of squares	1.00	
Df	1	
Significance	0.00	
Exact significance	0.00	
Asymp. significance	0.00	
Linear by linear	0.00	
Linear by quadratic	0.00	
Quadratic by quadratic	0.00	
Linear by cubic	0.00	
Quadratic by cubic	0.00	
Cubic by cubic	0.00	
Linear by quartic	0.00	
Quadratic by quartic	0.00	
Cubic by quartic	0.00	
Quartic by quartic	0.00	
Linear by quintic	0.00	
Quadratic by quintic	0.00	
Cubic by quintic	0.00	
Quartic by quintic	0.00	
Quintic by quintic	0.00	
Linear by sixth	0.00	
Quadratic by sixth	0.00	
Cubic by sixth	0.00	
Quartic by sixth	0.00	
Quintic by sixth	0.00	
Sixth by sixth	0.00	
Linear by seventh	0.00	
Quadratic by seventh	0.00	
Cubic by seventh	0.00	
Quartic by seventh	0.00	
Quintic by seventh	0.00	
Sixth by seventh	0.00	
Seventh by seventh	0.00	
Linear by eighth	0.00	
Quadratic by eighth	0.00	
Cubic by eighth	0.00	
Quartic by eighth	0.00	
Quintic by eighth	0.00	
Sixth by eighth	0.00	
Seventh by eighth	0.00	
Eighth by eighth	0.00	
Linear by ninth	0.00	
Quadratic by ninth	0.00	
Cubic by ninth	0.00	
Quartic by ninth	0.00	
Quintic by ninth	0.00	
Sixth by ninth	0.00	
Seventh by ninth	0.00	
Eighth by ninth	0.00	
Ninth by ninth	0.00	
Linear by tenth	0.00	
Quadratic by tenth	0.00	
Cubic by tenth	0.00	
Quartic by tenth	0.00	
Quintic by tenth	0.00	
Sixth by tenth	0.00	
Seventh by tenth	0.00	
Eighth by tenth	0.00	
Ninth by tenth	0.00	
Tenth by tenth	0.00	

1. The first part of the document is a list of names and titles, including "The Hon. Mr. Justice" and "The Hon. Mr. Justice".

of the user, and the station b corresponding to the second numbers column is a base station at the user's home.

5 Each stored subscriber respectively has a corresponding row of the numbers memory 3. Stored in the first row are the name "ABC" of a first subscriber and, in the numbers columns 8 corresponding to the base stations a and b, the call numbers valid for the corresponding
10 base stations. "ABC" could be, for example, a superior of the user who can be reached via the company's base station by an abbreviated dialing number "73" and an extension number "2318" and via the private base station b by using a local network code. The
15 subscriber "DEF" stored in the second row may be, for example, a personal friend of the user and can only be reached via a stored call number from the private base station b. A third subscriber "GHI", for example a colleague of the user, is assigned only a call number
20 valid at the company base station a, which is for example an extension number of an in-house telecommunications system. Since, in the example considered here, the terminal is used only in connection with the two base stations a and b, the
25 third and fourth numbers columns 8 remain unoccupied. Similarly, memory locations in the numbers columns 8 corresponding to the base stations a and b remain unoccupied if no call number is stored for a subscriber in connection with the corresponding base station.

30

An organization of the numbers memory 3 avoiding the leaving empty of individual memory locations is shown in figure 2B. Here, the numbers memory 3 is divided into a names column 9, a single numbers column 8 and a
35 stations column 10. Thus, for example, the first row of the numbers memory 3 contains in the names column the name "ABC", in the numbers column 8 the company call number of "ABC" and

in the stations column a set bit with respect to each base station for which the number is valid and a reset bit for all the other base stations. In the present case, only the bit corresponding to the company base station a is set; if the call number were valid for a number of base stations, all the bits corresponding to the stations would be set. The second row in turn contains the name "ABC", the call number valid for the private base station b and, in the stations column 10, a set bit corresponding to the station b.

If the terminal enters the transmitting/receiving range of a base station or is put into operation in this range, it is first necessary to designate this base station. In a simple configuration of the terminal, the user can do this manually, for example by pressing on the keypad 2 a key assigned to the base station to be designated. If the user later activates a dialing operating state of the terminal, the processor 1 reads the content of the call number memory 3 and displays on the display 4 only those names to which a call number valid for the designated base station is assigned in the numbers memory 3, so that the user can also only dial these numbers.

Figure 3A shows the form of the display 4 when the terminal a is designated. A first display zone 14 of the display 4 indicates which is the currently designated station; in a second display zone 15, the names of the persons to be called who can be dialed are shown. In this case, the name of one of the persons to be called which can be chosen by pressing a selection key of the operator control panel 2 is identified in a known way by a dark background 16, inverted script or bold representation of the letters. In the case of figure 3A, in which the base station a is designated and displayed in the display zone 14, the processor 1 selects the names "ABC" and "GHI" for

Variable	Mean	SD	Min	Max
Age	34.5	10.2	21	55
Gender	0.5	0.5	0	1
Marital status	0.6	0.5	0	1
Education	12.5	1.5	9	16
Income	15.2	8.5	5	35
Occupation	1.2	0.8	0	2
Health status	1.5	0.5	1	2
Life satisfaction	4.2	1.2	1	7
Stress level	3.8	1.5	1	6
Work-life balance	2.5	1.0	1	4
Family support	3.5	1.2	1	5
Community involvement	2.8	1.1	1	4
Personal growth	3.2	1.3	1	5
Financial stability	3.0	1.4	1	5
Emotional well-being	3.5	1.1	1	5
Physical health	3.8	1.0	1	5
Social relationships	3.2	1.2	1	5
Work satisfaction	3.5	1.1	1	5
Life goals achievement	3.0	1.3	1	5
Overall quality of life	3.5	1.2	1	5

1. The first part of the paper discusses the importance of understanding the underlying mechanisms of the observed phenomena. It highlights the need for a comprehensive theoretical framework that can explain the complex interactions between various factors. This involves identifying the key variables and their relationships, as well as developing a robust model that can be tested against empirical data.

2. The second part of the paper focuses on the empirical analysis. It describes the data sources, the sample characteristics, and the statistical methods used to analyze the data. The results of the analysis are presented in a clear and concise manner, highlighting the main findings and their implications. The paper also discusses the limitations of the study and suggests areas for future research.

3. The third part of the paper discusses the policy implications of the findings. It highlights the need for a comprehensive policy framework that can address the underlying causes of the observed phenomena. This involves identifying the key policy areas and the specific measures that need to be implemented. The paper also discusses the challenges of implementing these measures and suggests ways to overcome them.

4. The fourth part of the paper discusses the conclusion. It summarizes the main findings of the study and highlights the key contributions. It also discusses the limitations of the study and suggests areas for future research. The paper concludes by emphasizing the importance of understanding the underlying mechanisms of the observed phenomena and the need for a comprehensive policy framework that can address the underlying causes.

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number is not valid for the station a. By analogy, in the case shown in figure 3B where the base station b is designated, only the names "ABC" and "DEF" are displayed; the subscriber "GHI" cannot be selected.

5

In a more advanced configuration of the terminal, the processor 1 automatically performs the designation of the base station. For this purpose it is sufficient to evaluate the legitimation record usually made when a terminal is activated at a base station and in which the base station reveals its identity to the terminal. In this way, a fully automatic change between different base stations is possible, and the use of the correct call numbers is ensured at each base station, even without the user having to know in the transmitting/receiving range of which base station the terminal is located.

The input of call numbers and names into the numbers memory 3 takes place in a known way. Following the input, the processor 1 provides the user with the choice via the display 4 of whether he would like to specify base stations for which the call number entered is valid. If the user answers no by pressing a corresponding key of the keypad 2, the entered call number is regarded as valid for all the base stations, that is to say in the case of an organization of the numbers memory such as that shown in figure 2A, the number is entered identically into all the numbers columns 8; in the case of the organization represented in figure 2B, all the bits of the stations column 10 for the number concerned are set. For a user who does not require the capability of the terminal to activate itself for different base stations, the input of data into the numbers memory therefore does not involve any more effort than in the case of a terminal which does not have this capability.

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Patent claims

1. A mobile telecommunications terminal which can be activated at in each case one of a number of different base stations in order to set up and conduct communication connections with a telecommunications network via this base station and which has a numbers memory (3), means (1, 4) for displaying names assigned to call numbers stored in the numbers memory and means (5) for transferring a call number to a base station in response to the selection by a user of the displayed name assigned to the call number, characterized in that it is possible to store in addition to a call number stored in the numbers memory information which indicates in connection with which of the number of base stations the call number can be dialed.
2. The terminal as claimed in claim 1, characterized in that the means for display (1, 4) are set up to display only those names among the ones assigned to the stored call numbers which can be dialed in connection with a designated base station.
3. The terminal as claimed in claim 1 or 2, characterized in that the numbers memory (3) is organized in columns (8, 9, 10), a numbers column (8) containing the stored call numbers and a stations column (10) specifying for each call number the base station(s) in connection with which the call number can be dialed.
4. The terminal as claimed in claim 1 or 2,

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5 characterized in that the numbers memory is organized in columns (8) which are respectively assigned to a base station, and in that stored in each column (8) are those call numbers which can be dialed in connection with the associated base station.

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6. The terminal as claimed in one of the preceding claims, characterized by an operator control element (2) for the user to designate the base station.
- 10
7. The terminal as claimed in one of the preceding claims, characterized in that it is set up to establish the identity of the base station at which it is activated and to make this base station the designated base station.
- 15
8. The terminal as claimed in one of the preceding claims, characterized by an operator control element (2) for switching over the display means (1, 4) between a dialing operating state, in which only the names which can be dialed in connection with the designated base station are displayed, and an editing operating state, in which all the data stored in the numbers memory are displayed.
- 20
9. The terminal as claimed in one of the preceding claims, characterized in that, unless otherwise specified by the user, it stores with respect to a call number entered by the user into the numbers memory (3) the information that the number can be
- 25
10. The terminal as claimed in one of the preceding claims, characterized in that it is a cordless telephone.
- 30

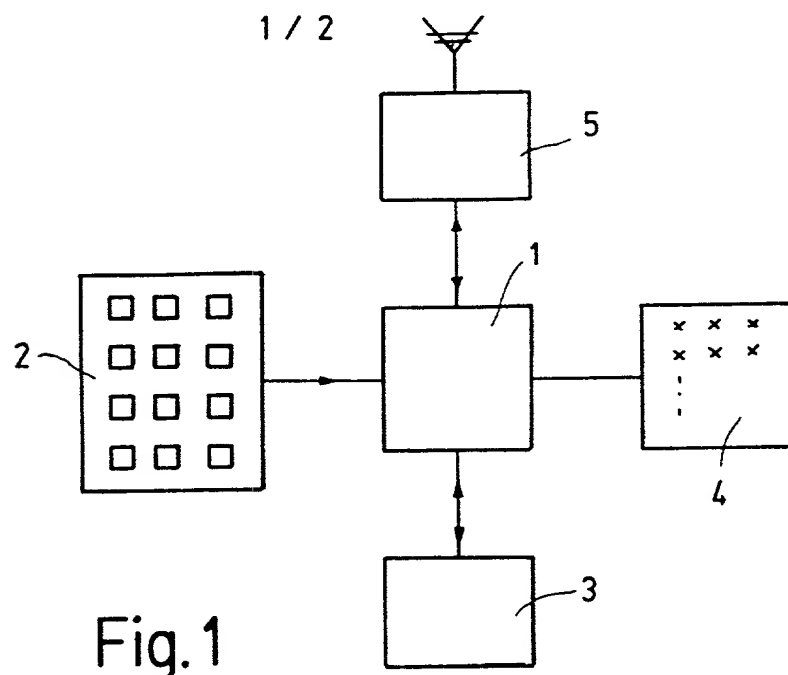


Fig. 2A

	a		b		c		d	
ABC	732318		02871912318		—		—	
DEF	—		987291		—		—	
GHI	5015		—		—		—	
⋮	⋮		⋮		—		—	

Fig. 2B

	a		b		c		d	
ABC	732318		×	—	—	—	—	
ABC	02871912318		—	×	—	—	—	
DEF	987291		—	×	—	—	—	
GHI	5015		×	—	—	—	—	
⋮	⋮							

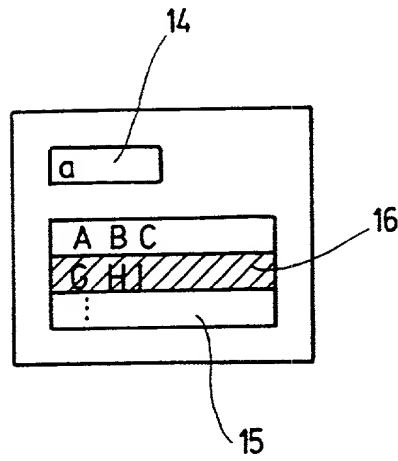


Fig. 3A

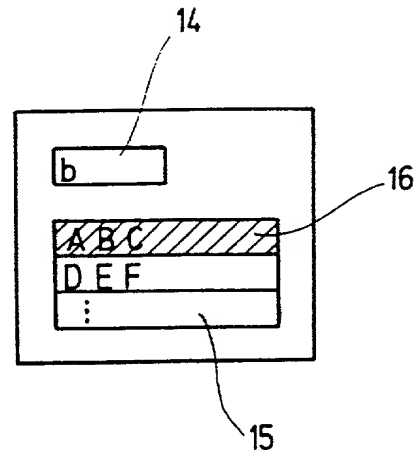


Fig. 3B

09/937539, 12604

Declaration and Power of Attorney For Patent Application

Erklärung Für Patentanmeldungen Mit Vollmacht

German Language Declaration

Als nachstehend benannter Erfinder erkläre ich hiermit an Eides Statt:

dass mein Wohnsitz, meine Postanschrift, und meine Staatsangehörigkeit den im Nachstehenden nach meinem Namen aufgeführten Angaben entsprechen,

dass ich, nach bestem Wissen der ursprüngliche, erste und alleinige Erfinder (falls nachstehend nur ein Name angegeben ist) oder ein ursprünglicher, erster und Miterfinder (falls nachstehend mehrere Namen aufgeführt sind) des Gegenstandes bin, für den dieser Antrag gestellt wird und für den ein Patent beantragt wird für die Erfindung mit dem Titel:

Mobiles Telekommunikations-Endgeraet

deren Beschreibung

(zutreffendes ankreuzen)

☐ hier beigefügt ist.

☒ am 21.03.2000 als

PCT internationale Anmeldung

PCT Anmeldungsnummer PCT/DE00/00877

eingereicht wurde und am _____

abgeändert wurde (falls tatsächlich abgeändert).

Ich bestätige hiermit, dass ich den Inhalt der obigen Patentanmeldung einschliesslich der Ansprüche durchgesehen und verstanden habe, die eventuell durch einen Zusatzantrag wie oben erwähnt abgeändert wurde.

Ich erkenne meine Pflicht zur Offenbarung irgendwelcher Informationen, die für die Prüfung der vorliegenden Anmeldung in Einklang mit Absatz 37, Bundesgesetzbuch, Paragraph 1.56(a) von Wichtigkeit sind, an.

Ich beanspruche hiermit ausländische Prioritätsvorteile gemäss Abschnitt 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 119 aller unten angegebenen Auslandsanmeldungen für ein Patent oder eine Erfindersurkunde, und habe auch alle Auslandsanmeldungen für ein Patent oder eine Erfindersurkunde nachstehend gekennzeichnet, die ein Anmeldedatum haben, das vor dem Anmeldedatum der Anmeldung liegt, für die Priorität beansprucht wird.

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

Mobile telecommunications terminal ✓

the specification of which

(check one)

☐ is attached hereto.

☒ was filed on 21.03.2000, as

PCT international application

PCT Application No. PCT/DE00/00877 ✓

and was amended on _____
(if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Patent 664660

German Language Declaration

Prior foreign applications
Priorität beansprucht

Priority Claimed

19913884.2

DE

26.03.1999

☒

☐

(Number)
(Nummer)

(Country)
(Land)

(Day Month Year Filed)
(Tag Monat Jahr eingereicht)

Yes
Ja

No
Nein

(Number)
(Nummer)

(Country)
(Land)

(Day Month Year Filed)
(Tag Monat Jahr eingereicht)

☐
Yes
Ja

☐
No
Nein

(Number)
(Nummer)

(Country)
(Land)

(Day Month Year Filed)
(Tag Monat Jahr eingereicht)

☐
Yes
Ja

☐
No
Nein

Ich beanspruche hiermit gemäss Absatz 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 120, den Vorzug aller unten aufgeführten Anmeldungen und falls der Gegenstand aus jedem Anspruch dieser Anmeldung nicht in einer früheren amerikanischen Patentanmeldung laut dem ersten Paragraphen des Absatzes 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 122 offenbart ist, erkenne ich gemäss Absatz 37, Bundesgesetzbuch, Paragraph 1.56(a) meine Pflicht zur Offenbarung von Informationen an, die zwischen dem Anmeldedatum der früheren Anmeldung und dem nationalen oder PCT internationalen Anmeldedatum dieser Anmeldung bekannt geworden sind.

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §122, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application.

PCT/DE00/00877
(Application Serial No.)
(Anmeldeseriennummer)

21.03.2000
(Filing Date D, M, Y)
(Anmeldedatum T, M, J)

anhängig
(Status)
(patentiert, anhängig,
aufgegeben)

pending
(Status)
(patented, pending,
abandoned)

(Application Serial No.)
(Anmeldeseriennummer)

(Filing Date D,M,Y)
(Anmeldedatum T, M; J)

(Status)
(patentiert, anhängig,
aufgeben)

(Status)
(patented, pending,
abandoned)

Ich erkläre hiermit, dass alle von mir in der vorliegenden Erklärung gemachten Angaben nach meinem besten Wissen und Gewissen der vollen Wahrheit entsprechen, und dass ich diese eidesstattliche Erklärung in Kenntnis dessen abgebe, dass wissentlich und vorsätzlich falsche Angaben gemäss Paragraph 1001, Absatz 18 der Zivilprozessordnung der Vereinigten Staaten von Amerika mit Geldstrafe belegt und/oder Gefängnis bestraft werden koennen, und dass derartig wissentlich und vorsätzlich falsche Angaben die Gültigkeit der vorliegenden Patentanmeldung oder eines darauf erteilten Patentes gefährden können.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

German Language Declaration

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POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)



29177
PATENT TRADEMARK OFFICE

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or
Customer No.

Voller Name des einzigen oder ursprünglichen Erfinders: ROLF BIEDERMANN		Full name of sole or first inventor: ROLF BIEDERMANN	
Unterschrift des Erfinders <i>R. Biedermann</i>	Datum 20.9.01	Inventor's signature	Date
Wohnsitz AHAUS, DEUTSCHLAND <i>DEX</i>		Residence AHAUS, GERMANY	
Staatsangehörigkeit DE ✓		Citizenship DE	
Postanschrift SOLMSSTR. 47A		Post Office Address SOLMSSTR. 47A	
48683 AHAUS		48683 AHAUS	
Voller Name des zweiten Miterfinders (falls zutreffend):		Full name of second joint inventor, if any.	
Unterschrift des Erfinders	Datum	Second Inventor's signature	Date
Wohnsitz		Residence	
Staatsangehörigkeit		Citizenship	
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(Bitte entsprechende Informationen und Unterschriften im Falle von dritten und weiteren Miterfindern angeben).

(Supply similar information and signature for third and subsequent joint inventors).

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